

REMARKS

Claims 1, 8, 10, 11, 12, 14-18, 43 and 51-61 are pending in this application. Reconsideration and allowance of the above-referenced application are respectfully requested. If a Petition for extension of time is required, this paper is to be considered such Petition, and any fee charged to Deposit Account No. 06-1050.

Rejection of Claims 1, 8-10, 12, and 14-18 under 35 U.S.C. §102

Claims 1, 8-10, 12, and 14-18 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Oz (U.S. Patent 6,269,819). Applicants have amended claim 1 to more distinctly recite pre-existing features of the invention, and respectfully traverse as follows.

Amended claim 1 recites system for modifying a valve in a patient's heart to reduce regurgitation which includes, among other features, a supporting structure adapted for deployment at a tissue location directly on the annulus rather than on leaflets connected to the annulus, . . . , for modifying the annulus when deployed at the tissue location so as to reduce regurgitation in the valve.

Oz fails to teach or suggest a supporting structure releasably coupled to the catheter, the supporting structure being adapted for deployment at a tissue location directly on the annulus rather than on leaflets connected to the annulus. In fact, Oz explicitly teaches away from the above-recited feature of Claim 1. Notably, Oz teaches

Nevertheless, recent studies performed by the inventors (Umana et al., Surg Forum 1997) have revealed that posterior ring annuloplasty causes changes in ventricular geometry that lead to paradoxical movement of the normal papillary muscles, further deteriorating ventricular performance. In contrast, the "bow-tie" repair in which the anterior and posterior leaflets of the mitral valve are fixed in opposition appears to enhance annular contractility while preserving ventricular architecture. This has resulted in improved postoperative ventricular function almost uniformly.

Oz, column 2, lines 4-14.

Instead, Oz discloses using a structure such as a grasper to hold the valve leaflets together. The grasper is positioned to contact the leaflets. Oz makes no mention of deploying a structure directly on the annulus itself nor does Oz have any suggestion or motivation for deploying a structure directly on the annulus rather than on leaflets connected to the annulus.

In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1. Claims 8-10, 12, and 14-18 all depend from claim 1 and include all of the features of the base claim plus additional features. Applicants respectfully request that the rejection of claims 8-10, 12, and 14-18 be withdrawn for at least the reasons provided in traversing the rejection of claim 1.

Rejection of Claim 11 under 35 U.S.C. §103

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Oz in view of O'Connor (U.S. Patent 5,450,860). Applicants repeat herein the reasons provided above in traversing the rejection of claim 1 in view of Oz. Notably, Oz not only fails to teach or suggest the recited features but explicitly teaches away from any structure mounted to the annulus.

Like Oz, O'Connor too teaches away from mounting any structure on the annulus. Applicants respectfully refer the Examiner to col. 2, lines 10-66. Consequently, even if one of ordinary skill in the art were motivated to combine the teachings of Oz and O'Connor, the combination fails to disclose or suggest each of the recited features. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 11.

Rejection of Claims 43 and 51-61 under 35 U.S.C. §103

Claims 43 and 51-61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Northrup (U.S. Patent 5,593,424) in view of Oz. Applicants have amended claim 43 to more distinctly recite features of the invention, and respectfully traverse the rejection as follows. Claim 43 recites an endovascular method of modifying a valve in a patient's heart by advancing a catheter through the patient's vasculature into the heart from a vascular access point remote from the heart. Claim 43 recites, inter alia, placing the anchors directly on the annulus rather than on leaflets connected to the annulus; coupling a filament to the anchors; and tightening the filament so as to modify the annulus to reduce regurgitation in the valve.

The office action acknowledges that Northrup does not teach a method of delivering the anchors. Instead, the rejection relies on Oz's disclosure for such teachings. As described above, Oz teaches away from attaching any structure directly to the annulus, a feature of the rejected claims. Instead, Oz discloses devices and methods for "bow-tie" repair in which a structure is

deployed on the valve leaflets, not directly on the annulus. The devices and methods described in Oz are specifically related to a structure that grasps the leaflets such as a grasper with jaws.

The combination of Oz with Northrup fails to disclose or suggest the method of claim 43. The device disclosed in Oz is structurally unsuited for placing anchors on the annulus. Rather, the Oz device is a grasper that grabs and coapts the leaflets. The examiner has provided no basis as to how such a grasper could be used in a method that involves the step of placing anchors on the annulus, as recited in claim 43. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 43. Claims 51 and 53-61 all depend from claim 43 and are patentable over the prior art for at least those reasons articulated with respect to claim 43, as well as on their own merit.


Conclusion

The above is believed to be a complete response. In view of the amendments and remarks herein, Applicants believe that all claims are now in condition for allowance and ask that these pending claims be allowed. The foregoing comments made with respect to the positions taken by the Examiner are not to be construed as acquiescence with other positions of the Examiner that have not been explicitly contested. Accordingly, the arguments for patentability of a claim should not be construed as implying that there are not other valid reasons for patentability of that claim or other claims. The Examiner is invited to telephone the undersigned to resolve any remaining issues and/or informalities and expedite prosecution of this case.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Fred C. Hernandez
Reg. No. 41,832

PTO Customer No.: 20985
Fish & Richardson P.C.
12390 El Camino Real
San Diego, California 92130
Telephone: (858) 678-5625
Facsimile: (202) 626-7796
Email: fhernandez@fr.com
10796069.doc